

Title (en)

Multiple PLL oscillator and multiple CW radar using such an oscillator

Title (de)

Oszillator mit mehreren Phasenregelschleifen und Mehrfachwellen-CW-Radar mit einem solchen Oszillator

Title (fr)

Oscillateur à boucles à verrouillage de phase multiples et radar à ondes continues multiples utilisant un tel oscillateur

Publication

EP 1383244 A1 20040121 (EN)

Application

EP 02019037 A 20020827

Priority

JP 2002206718 A 20020716

Abstract (en)

One of outputs of reference frequency sources 11 and 12 is selected by a switch 13, as a reference frequency signal and compared with the phase of an output of a frequency divider 19 by a phase comparator 14. A voltage controlled oscillator 16 is controlled by a result of comparison. An output of the voltage controlled oscillator 16 and an output of another reference frequency source 18 are mixed by a mixer 17. An upper side band frequency signal of the mixer 17 is used as an output of the multiple PLL oscillator, and a lower side band frequency signal of the mixer 17 is supplied to the frequency divider 19. With the configuration, in the multiple millimeter PLL oscillator, even when the dividing number of frequency increases, lock-up time to reach a desired frequency can be shortened. Thus, stability of a PLL can be improved and specifications of the oscillation frequency of the millimeter wave band and a step frequency of hundreds kHz can be realized. The invention is adapted to an oscillator for a two waves millimeter wave radar. <IMAGE>

IPC 1-7

H03L 7/23; **H03L 7/16**

IPC 8 full level

G01S 7/35 (2006.01); **G01S 13/38** (2006.01); **G01S 13/50** (2006.01); **H03L 7/16** (2006.01); **H03L 7/185** (2006.01); **H03L 7/197** (2006.01); **H03L 7/22** (2006.01); **H03L 7/23** (2006.01); **G01S 13/34** (2006.01)

CPC (source: EP US)

G01S 7/35 (2013.01 - EP US); **H03L 7/185** (2013.01 - EP US); **H03L 7/23** (2013.01 - EP US); **G01S 13/348** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1383244 A1 20040121; **EP 1383244 B1 20050119**; DE 60202673 D1 20050224; DE 60202673 T2 20051222; JP 2004056172 A 20040219; JP 4164301 B2 20081015; US 2004012447 A1 20040122; US 6747488 B2 20040608

DOCDB simple family (application)

EP 02019037 A 20020827; DE 60202673 T 20020827; JP 2002206718 A 20020716; US 22282902 A 20020819